



P1650D5

INDUSTRIAL RANGE
POWERED BY PERKINS



POWER DEFINITION

PRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1.

ESP: The standby power rating is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1. Overload is not allowed

TERMS OF USE

According to the standard, the nominal power assigned by the genset is given for 25 ° C Air Inlet Temperature, of a barometric pressure of 100 kPa (100 m A.S.L), and 30 % relative humidity. For particular conditions in your installation, refer to the derating table.

TERMS OF USE

For the generating sets used indoor, where the acoustic pressure levels depends on the installation conditions, it is not possible to specify the ambient noise level in the exploitation and maintenance instructions.

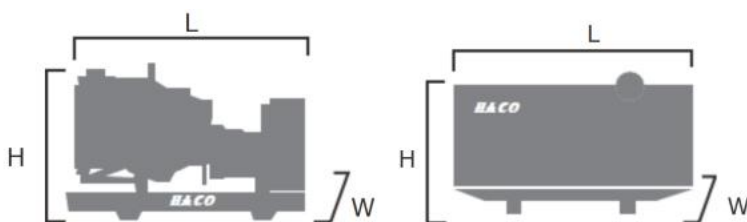
You will also find in our exploitation and maintenance instructions a warning concerning the air noise dangers and the need to implement appropriated preventive measures.

SERVICE		PRP	EPS
POWER	kVA/kW	1500/1200	1650/1320
RATED SPEED	r.p.m	1500	
STANDARD VOLTAGE	V	400/230	
AVAILABLE VOLTAGES	V	380/220-415/240	
RATED AT POWER FACTOR	Cos φ	0.8	

Generator Specification

WATER-COOLED	THREE PHASE	50 HZ	DIESEL	DUAL-WALL FUEL TANK (Optional)
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Weight And Dimensions



Dimension		Open	Silent
Length(L)	mm	4800	12192
Width(W)	mm	2250	2438
Height(H)	mm	2500	2591
Net Weight	kg	8150	11850
Fuel Tank	L	1200	1200



Engine Specifications

General Engine Data		
Manufacturer		PERKINS
Engine Specification		4012-46TWG4A
Made in		INDIA
Rated RPM		1500 RPM
Prime Power	kWm	1308
Stanby Power	kWm	1396
Cycle	4 stroke, compression ignition	
Induction system	Turbocharged, air to air charge cooling	
Cylinder / Arrangement	12 / V	
Displacement	45.842 L	

Information other		
Bore and Stroke	mm	160×190
Compression ratio	13.6:1	
Type lubricating oil	15W40 – CF4	
Total lubrication system w/filters	L	177 L
Fuel		
Consumption @ 50% load ESP	L/H	160
Consumption @ 75% load ESP	L/H	233
Consumption @ 100% load ESP	L/H	316
Consumption @ 110% load ESP	L/H	355

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- Diesel engine
- 4-stroke cycle
- Water-cooled
- 12V electrical system
- Water separator filter
- Dry air filter
- Radiator with pusher fan
- Electronic governor
- Hot parts protection
- Moving parts protection
- Water jacked heater (Optional)
- Radiator water level sensor (Optional)
- Oil heater (Optional)
- Heavy duty air filter (Optional)

Alternator Specifications

Alternator Specifications			
Brand	BURG	Coupling	Direct
Model	B-1650-4	Exciter type	AREP
Number of phase power	3	Insulation system	Class H
Factor (Cos Phi)	0.8	Protection	IP23
Pole	4 number	Voltage regulation (Max.)	±1%
Bearing	1 number	Winding Pitch	2/3



- Self-excited and self-regulated
- IP23 protection
- H class insulation
- Alternator pre-heater (Optional)
- Winding temp. measuring instrument (Optional)
- PMG/AREP/MAUX (Optional)

Information other

Other information of Alternator	
Stator Winding	Double layer lap
Waveform distortion	No load < 1.5 %
Total Harmonic Distortion	Non distorting balanced linear load < 5 %
Maximum Unbalanced Load across phases (With the condition that none of the phases exceeds its rated current)	Less than or equal to 25%
Telephone Interference	THF<2%
AVR	MX321

Methods		
Methods speed	Electronic	
Methods lubrication	Forced oil pump	
Methods colling	By water with blower	
Noise level		
Open type noise level @7m	dB	105-115
Silent type noise level @7m	dB	75-78

Genset version

- Steel chasis
- Emergency stop button
- Anti-vibration shock absorbers
- Trailer type (Optional)
- Chassis with integrated fuel tank
- Fuel level gauge
- High mechanical strength
- Epoxy polyester powder coating
- Fuel tank drain plug
- Steel residential silencer - 20dbA attenuation
- Battery charger
- Stackable canopy design

This document is not contractual - The HACO company reserves the right to modify any of the characteristics stated in this document without notice, in a constant effort to improve the quality of its products. *ISO 8528. .

HACO Power gensets are compliant with ISO 9001 and CE standard, which include the following directives:

- 2006/42/EC Machinery safety.
- 2006/95/EC Low voltage
- EN 60204-1: 2006+A1: 2009, EN ISO 12100: 2010, EN ISO 13849-1: 2008, EN 12601 : 2010

Standard reference Conditions

Ambient conditions of reference according to ISO 8528-1:2018 normative: 1000 mbar, 25°C, 30% relative humidity.

Weights and dimensions based on standard products. Illustrations may include optional equipment. Technical data described in this catalogue correspond to the available information at the moment of printing.

Control Panel Data



- Control Panel is Deepsea DSE6120 (UK) a new control module for single gen-set applications, and it is an Automatic Start Control Module and is simple to operate, and the module includes USB, RS232 and RS485 for expansion device connectivity.

- Specifications: Frequency meter, Ammeter, Voltmeter Alarms and faults Oil pressure, water temperature, No start-up, Overspeed, Min / max alternator, Min / max battery voltage, Low fuel level, Emergency stop.

- Engine parameters: Hours counter, Oil pressure, Water, temperature, Engine speed, Battery voltage, Fuel level.

Option

Engine	Alternator	Generator Sets	Fuel System
- Water Jacket Pre-heater - Fuel heater	- Winding Temp measuring Instrument - Alternator Pre - heater - PMG - Anti-damp and anti-corrosion treatment - Anti-condensation heater - Winding and bearing RTD	- Tools with the machine - Extended range fuel tank - Bunded fuel tank	- Low fuel level alarm - Automatic fuel feeding system - Fuel T-valves
Canopy	Lub oil system	Cooling System	Control Panel
- Rental type - Canopy - Trailer	- Oil temp sensor - Oil Pre-heater	- Front heat protection	- Remote control panel - ATS - Synchronizing controller - Adjustable earth leakage relay

Note: All data sheets are for reference only and subject to change without prior notice.



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